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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/634,384 08/09/00 BLOMQUIST

H TRW(VSSIM)47

EXAMINER

PM82/0523

TAROLLI SUNDHEIM COVELL TUMMINO & SZABO
1111 LEADER BUILDING
526 SUPERIOR AVENUE
CLEVELAND OH 44114-1400

MILLER, E	
ART UNIT	PAPER NUMBER

3641
DATE MAILED:

05/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.

09/634,384

Applicant(s)

BLOMQUIST ET AL.

Examiner

Edward A. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 11-19 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-10 and 20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The presence of the two distinct groups of claims has been previously noted in the restriction requirement, for example. However, upon considering the specification, there is only one disclosed mode of practicing the invention, which is to use electro-exploded powder.

Therefore, claims including claim 1 and claims dependent thereon are not adequately described such as to convey to one of ordinary skill in the art what the intended coverage of the claims is.

Therefore, these claims are based upon an inadequate disclosure.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-10 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

See paragraph 2 above. The presence of the two distinct sets of claims as written clearly states that there are two distinct inventions. However, a consideration of the specification shows that there is only one exemplified kind of disclosure. Therefore, at least some of the claims are based upon an inadequate disclosure, or the claims are misdescriptive in implying two distinct inventions, as written. Applicant is called upon to clearly state on the record whether the disclosure

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as exemplified, with electro-exploded metal powder, has only fines, has only agglomerates, or includes a mixture of both. As written, and in view of the sole exemplary support, it would appear that the two sets of claims are misdescriptive and incorrect in implying two separate, disparate things, when in fact there is only one electro-exploded metal powder. Such is indefinite.

5. As to paragraph 4 above, should the claims in fact comprise improper, misdescriptive language for what is the same thing, then the restriction requirement will be withdrawn, as it is obviously improper to restrict claims drawn to the identical thing.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baginski, in view of Halcomb et al., Dixon et al., Wheatley and Lundstrom.

Baginski teach the basic invention of electro-explosive primers in broad outline at col. 1, lines 23-36, with a pyrotechnic mix around a bridgewire. The pyrotechnic mix or composition is set forth at col. 8, line 60- col. 9, line 9 with certain of the advantages thereof. Further, at col. 9, lines 61-67, the compositions may be the usual metal fuel/oxidizer mixes known in the pyrotechnic arts. However, the specifics of the metal particulates are not specifically taught. Halcomb et al. teach a similar device, with the pyrotechnic composition further disclosed at col. 1, lines 62-68 and col. 2, lines 40-47, with metal fuel plus metal oxide oxidizer, as at col. 9, line 65 of Baginski. However, the particle size details are still not taught. Dixon et al. in the Abstract, teach that pyrotechnic ignition mixtures of metal and oxide oxidizer may be around 0.1 microns in size, and that the aluminum, as

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is notoriously well known, is in the form of particulates which are coated with a surface oxide layer, which serves to desensitize the metal powder. Wheatley teaches exploded metal powder which is used with salt oxidizers, and use of this form of metal powder would have been obvious, in the expectation of results in accordance with the properties shown in similar pyrotechnic compositions. See The Abstract and col. 1, lines 45-55 of Wheatley. Lundstrom further shows, with ignition compositions at col. 2, lines 53-57 and at col. 3, lines 7-24, that hot particulates are part of the ignition mechanism, and that ignition may be promoted with the use of very small particle size metals or metal oxides. Further, use of agglomerate particles instead of non-agglomerated particles is further notoriously well known in the art. In short, substitution of specific metal fuel particulate compositions for similar metal fuel particulates for the expected results would have been obvious. It would appear that the electro-exploded metal particulates of Wheatley inherently include at least some agglomerates, as applicant's disclosure teaches using the identical product by the identical manufacturer. It is well settled that optimizing a result effective variable is well within the expected ability of a person or ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached daily, except alternate Fridays, from about 9:30 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198. The Group fax number is (703) 305-7687. If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
May 21, 2001



EDWARD A. MILLER
PRIMARY EXAMINER